

Attorney Docket No. ACMR-001/02US

PATENT

Express Mail Label Number: EL514032537US
Date of Deposit: 18 APRIL 2001

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Date: 18 April 2001

By: *Vladimir Skliba*
Vladimir Skliba

J1036 U.S. PTO
09/837902
04/18/01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of Hui WANG

Serial No.: Unassigned

Examiner: Unassigned

Filed: Herewith

Art Unit: Unassigned

For: PLATING APPARATUS AND METHOD

Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

Enclosed is an Information Disclosure Statement and accompanying Form PTO/SB/08 for the above-identified patent application.

- ☒ In accordance with 37 C.F.R. §1.97(b), no additional fee for submission of the IDS is required.
- ☐ In accordance with 37 C.F.R. §1.97(c), also enclosed is:
- ☐ the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p); or
- ☐ a statement as specified in 37 C.F.R. §1.97(e).
- ☐ In accordance with 37 C.F.R. §1.97(d), a statement as specified in 37 C.F.R. § 1.97(e) and the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p) are also enclosed.
- ☐ Check No. _____ in the amount of \$_____ for the total fee is attached.
- ☐ Please charge \$_____ to Deposit Account No. 03-3117 for the total fee.
This paper is being submitted in duplicate.

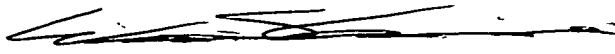
The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 03-3117.

Dated: 4-17-01

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Respectfully submitted,
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Attorney Docket No. ACMR-001/02US

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In re application of Hui WANG

Serial No.: 09/837902

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Leader

Filed: 4-18-01

~~Herewith~~

Art Unit: ~~Unassigned~~

1741

For: PLATING APPARATUS AND METHOD

Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97(b)

In accordance with the duty of disclosure set forth in 37 C.F.R. §1.56, Applicant(s) hereby submits the following information in conformance with 37 C.F.R. §§1.97 and 1.98.

- ☐ Pursuant to 37 C.F.R. §1.98, a copy of each document cited in the attached Form PTO/SB/08 is enclosed.
- ☒ No copies of the publications listed on the attached Form PTO/SB/08 are being provided pursuant to 37 C.F.R. §1.98(d) because the publications were previously cited by or submitted to the Office in prior Application Serial No. 09/232,864 to which the above-identified application claims priority under 35 U.S.C. §120.
- ☐ Publication(s) _____ listed on the attached Form PTO/SB/08 were cited in a foreign search or examination report corresponding to _____ application serial no. _____ and mailed on _____.

- ☐ Enclosed is a copy of a non-English publication(s) _____. Pursuant to §609 of the M.P.E.P., Applicant submits the attached foreign search or examination report, which cites such non-English language publication(s).
- ☐ Enclosed is a copy of a non-English publication(s) _____. English language publication _____ (copy enclosed) claims priority from this non-English publication.
- ☐ Enclosed is an explanation of non-English publication(s) _____ for which an English translation is not available.
- ☐ Enclosed is an English translation of the non-English publication(s) cited in the attached Form PTO/SB/08.
- ☐ Enclosed is a copy of pending patent Application Serial No. _____.

This Information Disclosure Statement is filed within any one of the following time periods:

- ☒ within three months from the filing date of this national application other than a CPA under 37 C.F.R. § 1.53(d);
- ☐ within three months from the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in this international application;
- ☐ before the mailing date of a first office action on the merits; or
- ☐ before the mailing of a first office action after the filing of a request for continued examination under 37 C.F.R. § 1.114.

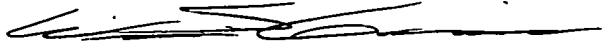
It is respectfully requested that the Examiner consider the above-noted information and return an initialed copy of the attached Form PTO/SB/08 to the undersigned.

Dated: 4-17-01

Cooley Godward LLP
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Respectfully submitted,
COOLEY GODWARD LLP

By:



William S. Galliani
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Please type a plus sign (+) inside this box → +

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	Unassigned
				Filing Date	Filed Herewith
				First Named Inventor	Hui WANG
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
				Attorney Docket Number	ACMR-001/02US
Sheet	1	of	2		

1036 U.S. PTO
 09/837902
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U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	P1	4,304,641		Granadia et al.	12-08-1981	
	P2	5,222,310		Thompson et al.	06-29-1993	
	P3	5,377,708		Bergman et al.	01-03-1995	
	P4	5,421,987		Tzanavaras et al.	06-06-1995	
	P5	5,443,707		Mori	08-22-1995	
	P6	5,489,341		Bergman et al.	02-06-1996	
	P7	5,516,412		Andricacos et al.	05-14-1996	
	P8	5,584,310		Bergman et al.	12-17-1996	
	P9	5,620,581		Ang	04-15-1997	
	P10	5,670,034		Lowery	09-23-1997	
	P11	5,678,320		Thompson et al.	10-21-1997	
	P12	5,744,019		Ang	04-28-1998	

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴ Kind Code ⁵ (if known)				
	F1	EP	0 257 670	David Raymond Eastham, et al.	03-02-1988		
	F2	WO	90/00476	David B. Tuckerman	01-25-1990		
	F3	WO	95/20064	Edward N. Berg	07-27-1995		

Examiner Signature		Date Considered	
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¹ Unique citation designation number.

² See attached Kinds of U.S. Patent Documents.

³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	Unassigned
				Filing Date	Filed Herewith
				First Named Inventor	Hui WANG
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	2	of	2	Attorney Docket Number	ACMR-001/02US

1036 U.S. PRO
 09/03/902

04/18/01

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	D1	PATENT ABSTRACT OF JAPAN, "Plating Method," Publication No. 57171690, Publication Date: Oct. 22, 1982	
	D2	PATENT ABSTRACT OF JAPAN, "Partial Plating Device," Publication No. 01234590, Publication Date: Sep. 19, 1989	
	D3	CONTOLINI et al., "Copper Electroplating Process for Sub-Half-Micron ULSI Structures," <u>VMIC Conference 1995 ISMIC – 104/95/0322</u> , Pgs. 322-328, Jun. 27-29, 1995	
	D4	DEVARAJ et al., "Pulsed Electrodeposition of Copper," <u>Plating & Surface Finishing</u> , Pgs. 72-78, Aug. 1992	
	D5	DUBIN, "Copper Plating Techniques for ULSI Metallization," <u>Advanced MicroDevices</u>	
	D6	DUBIN, V.M., "Electrochemical Deposition of Copper for On-Chip Interconnects," <u>Advanced MicroDevices</u>	
	D7	GAUVIN et al., "The Effect of Chloride Ions on Copper Deposition," <u>J. of Electrochemical Society</u> , Vol. 99, Pgs. 71-75, Feb. 1952	
	D8	OSERO, N.M., "An Overview of Pulse Plating," <u>Plating and Surface Finishing</u> , Mar. 1986	
	D9	PASSAL, F., "Copper Plating During the Last Fifty Years," <u>Plating</u> , Pgs. 628-638, Jun. 1959	
	D10	SINGER, P., "Copper Goes Mainstream: Low k to Follow," <u>Semiconductor International</u> , Pgs. 67-70, Nov. 1997	

Examiner Signature		Date Considered	
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